Software project 2 (Component 1)

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Problem definition

I will design and implement the Pursuit task. Pursuit is a standard task for benchmarking multi-agents algorithms. In a given grid with randomly generated obstacles, two types of agents, pursuers and evaders, are going to move by following these mechanics: the pursuers are trying to catch the evaders, while the evaders are trying to avoid them.

Problem specification

We will have two types of agents:

* PursuerAgent
* EvaderAgent

These agents can choose one of the following five actions: Stay, Go North, Go East, Go South, Go West. Moreover, they will receive a range-limited observation about their surroundings.

An evader is considered caught when it is on the same space as a pursuer, or whenever it is surrounded by pursuers.